Does Influence Beget Autonomy? Clarifying the Relationship between Social and Personal Power

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Abstract

We iteratively develop and test a model to clarify the relationship between both *high* and *low* levels of *social* (influence) and *personal* (autonomy) power. A meta-analysis synthesising primary data (n = 298) and secondary data (n = 498) found that impaired personal power coincided with impaired social power, but not vice versa. Unexpectedly, elevated social power did not coincide with elevated personal power, suggesting that the association between influence and autonomy attenuates with increasing levels of power. Predictions arising from the meta-analysis and our revised theoretical model were supported in a subsequent study (n = 266). We discuss implications of these findings and avenues for future research.

Keywords: power, influence, autonomy

Does Influence Beget Autonomy?

Clarifying the Relationship between Social and Personal Power

Power implies an ability to influence others (social power/influence), and to resist the influence of others (personal power/autonomy) (Dépret & Fiske, 1993). However, recent conceptual disagreements (see Pratto, 2016) together with a lack of empirical data on the relationship between social and personal power have highlighted gaps in our understanding of power. Scholars have voiced opinions regarding the link between social and personal power (e.g., Van Dijke & Poppe, 2006), but empirical evidence is lacking to corroborate key assumptions (reviewed below). Furthermore, previous work has focused on the relationship between different facets of *high* power, largely ignoring the relationship between different facets of *low* power. In the present research we seek to rectify this, clarifying the relationship between both high and low levels of social and personal power.

Power is multifaceted. In the broadest sense, power can be thought of as the ability to determine personally relevant rewards and punishments (Russell, 2004). In the social domain this implies the ability to control others and resist the control of others. Similar implications can be derived from contemporary definitions of power. Power is often argued to arise from asymmetric control over valued resources (Dépret & Fiske, 1993). In this view, power implies influence, via one's relative control over resources valued by others, but also a resistance to influence, via one's relative control over resources valued by the self. The former can be traced back to traditional notions of social power, in which power arises from control over resources valued by others, resulting in the actual, or potential, exercise of influence over people or groups (Dépret & Fiske, 1993; French, Raven, & Cartwright, 1959). An example of social power is the influence a manager exerts over his/her employees. On the other hand, the ability to resist the influence of others is equated with notions of autonomy and personal power. It describes the ability to control one's own outcomes, and implies

independence from others (Galinsky, Magee, Gruenfeld, Whitson, & Liljenquist, 2008; Van Dijke & Poppe, 2006). The distinction between social power/influence and personal power/autonomy has become more common in recent years, proving useful in explaining the nuanced effects of power in numerous domains (e.g., motivation, stereotyping; Lammers et al., 2009; Van Dijke & Poppe, 2006).

Even though social and personal power are theoretically distinct, it is widely assumed that in practice elevated influence coincides with elevated autonomy, and impaired influence with impaired autonomy. Indeed, empirical work shows that influence and autonomy are correlated (Anderson, John, & Keltner, 2012). Moreover, experimental work has also shown that typical states of power engender both feelings of greater autonomy and influence; conversely, typical states of powerlessness instigate both feelings of impaired autonomy and influence (Lammers et al., 2016).

It has been suggested that control over others affords personal freedom (Lammers et al., 2016; Van Dijke & Poppe, 2006). Supporting this, positions that grant influence (e.g., occupation, age) often afford autonomy (Sheldon, Kasser, Houser-Marko, Jones, & Turban, 2005; Weaver, 1977). Likewise, power-holders are more likely to exert control over their immediate environment (Galinsky, Gruenfeld, & Magee, 2003), and to pursue their goals in an autonomous fashion (Galinsky et al., 2008; Lammers, Galinsky, Gordijn, & Otten, 2012; Laurin et al., 2016). The fact that people seem to consider autonomy more consequential than influence is also consistent with this view. When given the choice to increase their autonomy or their influence, people are more likely to increase the former (Lammers et al., 2016; Van Dijke & Poppe, 2006), and such increases can satiate a general need for power (Inesi, Botti, Dubois, Rucker, & Galinsky, 2011; Lammers et al., 2016). Thus, there is good reason to believe that everything else being equal, high social power affords high personal power.

The question whether high personal power affords high social power has received less attention. Work on romantic relationships suggests that in the event that one partner becomes more independent, they may also become more influential (Rusbult & Buunk, 1993). Likewise, partners who focus more on their own autonomy report greater perceptions of power and being able to have a greater say in their relationships (Neff & Harter, 2002). However, other studies indicate that high autonomy reduces the desire to impose upon one's partner (Hodgins & Knee, 2002), and fosters less forceful approaches to conflict with strangers (Knee, Neighbors, & Vietor, 2001). Furthermore, parenting styles that grant children extreme levels of autonomy have been shown to promote behaviours aimed at influencing others (e.g., bullying; Olweus, 1994). However, similar outcomes are also associated with overly authoritarian parenting (Schwartz, Dodge, Pettit, & Bates, 1997). Taken together, it stands to reason that high personal power may not always afford high social power and a causal relationship from high personal to high social power may be moderated by additional factors.

As indicated earlier, the relationship between *low* personal power and *low* social power has been largely neglected. Looking at historical examples of groups whose autonomy was restricted (e.g., minorities, women) one typically finds that they had very little influence (e.g., Modood et al., 1997). Likewise, low-autonomy jobs do not typically afford the ability to influence others (e.g., Weaver, 1977). Furthermore, prolonged states of impaired autonomy can lead to feelings of powerlessness and social insignificance (Abramson, Seligman, & Teasdale, 1978), but may be alleviated by increases in social influence (Inesi et al., 2011), suggesting that reduced personal power implies reduced social power.

Conversely, impairments in social power do not seem to necessitate reductions in personal power. Lacking some forms of influence (e.g., responsibility) may in fact be beneficial for autonomy. For example, lacking familial or cultural responsibility can engender

feelings of autonomy (Fuligni, 1998). Furthermore, when influence is impaired one's motivation to gain autonomy is not amplified (Lammers et al., 2016). Since people are generally motivated to alleviate impairments in their autonomy (Lefcourt & Telegdi, 1971), this would suggest that lacking social power does not imply a lack of personal power.

Present Research

Based on the above literature, we hypothesised that high social power affords high personal power, but high personal power does not afford high social power. This hypothesis is consistent with the notion that gaining social power is a route via which people seek to gain personal power (Lammers et al., 2016; Van Dijke & Poppe, 2006). Furthermore, extending current theorising, we expect low personal power to afford low social power, but not vice versa. These predictions are summarised in our theoretical model (Figure 1).

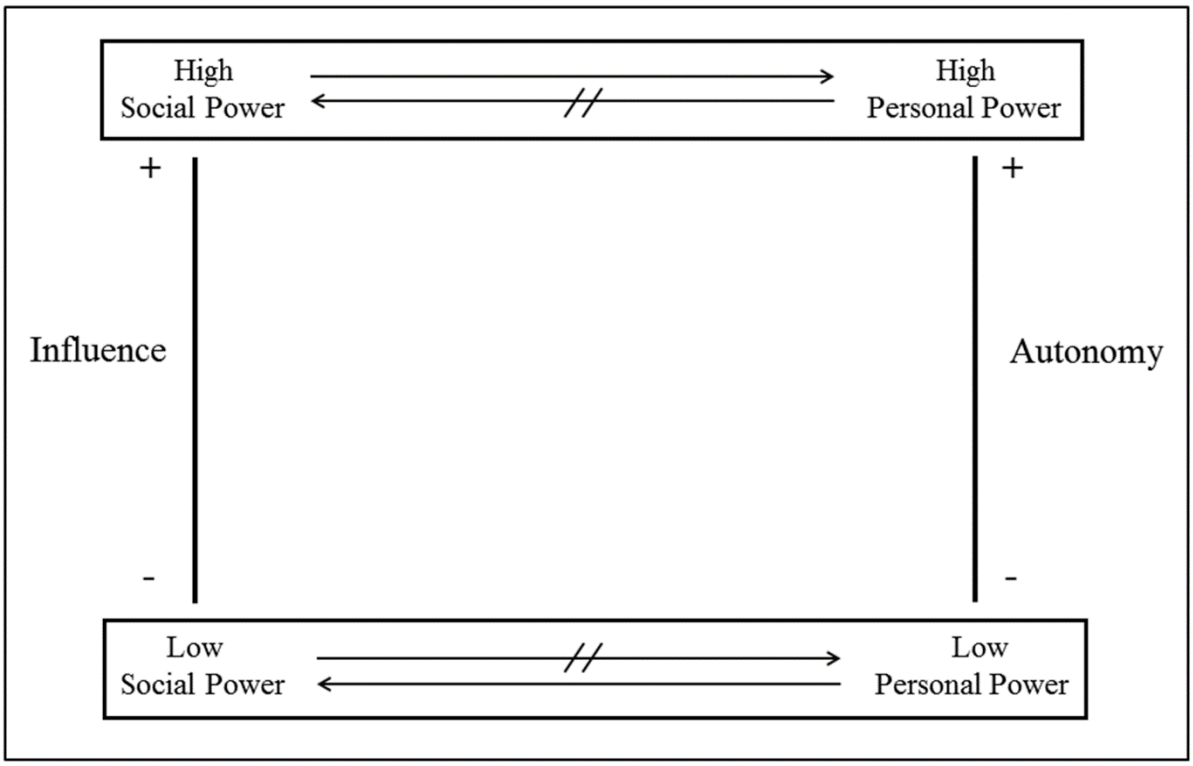


Figure 1. Theoretical model depicting the relationship between social and personal power.

To provide an empirical test of our theoretical model, we examined data derived from experimental studies in which participants recalled a previous experience of elevated (k = 4) or impaired (k = 3) social or personal power, and then described how much autonomy and influence they experienced in said event. By synthesizing primary data (n = 298) and secondary data (n = 498; Lammers et al., 2016; Lammers et al., 2009) from studies conducted in different contexts and with different samples, we sought to provide a robust test of our predictions, making an important step towards understanding how different facets of power are related. Note that previous work did not report inferential statistics for the effects of social power on autonomy, or personal power on influence (see Lammers et al., 2009; Lammers et al., 2016). These comparisons are crucial in testing our hypotheses and provide a critical extension of previous research.

Study 1

Participants and Design

Primary Data. Two-hundred and ninety-eight participants (243 female; M_{age} = 19.46, SD_{age} = 2.69) from a European University participated in exchange for course credit. The sample size was determined a-priori and provided over 90% power at $\alpha = .05$ to detect a medium sized effect (based on Lammers et al., 2016). Participants were randomly assigned to one of five experimental conditions (described below).

Secondary Data. Lammers and colleagues' (2009) sample consisted of 112 participants (73 female; M_{age} = 21.40) recruited from a European University. Furthermore, Lammers and colleagues (2016) sampled 205 participants (Study 4a: 80 female; M_{age} = 30.10) from the U.S. and 181 participants (Study 4b: 64 female; M_{age} = 30.10) from India; both recruited via *Amazon Mechanical Turk.* Participants were randomly assigned to experimental conditions in all studies.

Procedure and Materials

Primary Data. Upon arrival in the laboratory, participants were greeted by a male experimenter and seated in a private cubicle. All instructions were provided in written format and delivered on a PC. The experimenter remained blind to the allocation of participants to experimental conditions, which was controlled by an algorithm. Participants commenced the main part of the study after providing informed consent and the experimenter had left the cubicle. To investigate different states of power participants recalled and described an event in which they: (1) had control over others (high social power), or (2) had no control over others (low social power), or (3) were uncontrolled by others (high personal power), or (4) were controlled by others (low personal power). We also included a fifth condition in which participants recalled the last time they went grocery shopping. In absence of an adequately validated neutral or baseline condition for the present investigation we adopted the grocery scenario, which was used in several previous studies on (social) power (e.g., Inesi, 2010; Rucker & Galinsky, 2009; Tost, Gino, & Larrick, 2012).

The recall task lasted for seven minutes. Participants then indicated, on two-item measures, how much influence (e.g., "*How much control [influence] did you have over what would, or did, happen to another individual or individuals?"*; $\alpha_{social} = .85$, $M_{social} = 4.01$, $SD_{social} = 2.49$) and autonomy (e.g., "*How much control [influence] did you have over what would, or did, happen to you?"*; $\alpha_{personal} = .89$, $M_{personal} = 5.61$, $SD_{personal} = 2.56$) they experienced in the situation described in their essays (1 = *Not at all*; 9 = *Very Much*). At the end, participants were thanked and debriefed.

Secondary Data. The materials and measures employed by Lammers and colleagues were highly similar to the materials and measures described above (see also Table S1, Supplementary Materials), except that (a) the data collection was carried out online, (b) Lammers et al. (2009) did not include low power conditions, and (c) Lammers et al. (2016) did not employ neutral conditions and assessed *influence* and *autonomy* on 7-point scales.

Results and Discussion

All primary data were collected prior to analyses. In our presentation of the result below we employ a meta-analytic approach (see Cumming, 2013) and model variations between populations with random-coefficients to identify trends that generalise across studies. Effect sizes for pair-wise comparisons are estimated from standardized mean differences (Hedges' *g*, Hedges, 1981), and weighted via an inverse-variance method (Higgins & Green, 2011, Chapter 9). Means, standard deviations, and standardized mean differences are in the forest plots below (Fig. 2-5). Furthermore, Table S2 provides a concise overview of all means and standard deviations.

Manipulation Check

First we sought to confirm the basic effects of the manipulations—that influence increases with social power, and autonomy with personal power. As expected, high social power episodes were associated with more influence than low social power episodes, g = 1.62, 95% CI [0.37, 2.87], $Z_{combined} = 2.54$, $n = 297$, $p_{combined} = .010$ (Figure 2, top), and high personal power episodes were associated with greater autonomy than low personal power episodes, $g = 2.10$, 95% CI [0.84, 3.37], $Z_{combined} = 3.26$, $n = 327$, $p_{combined} < .001$ (Figure 2, bottom).

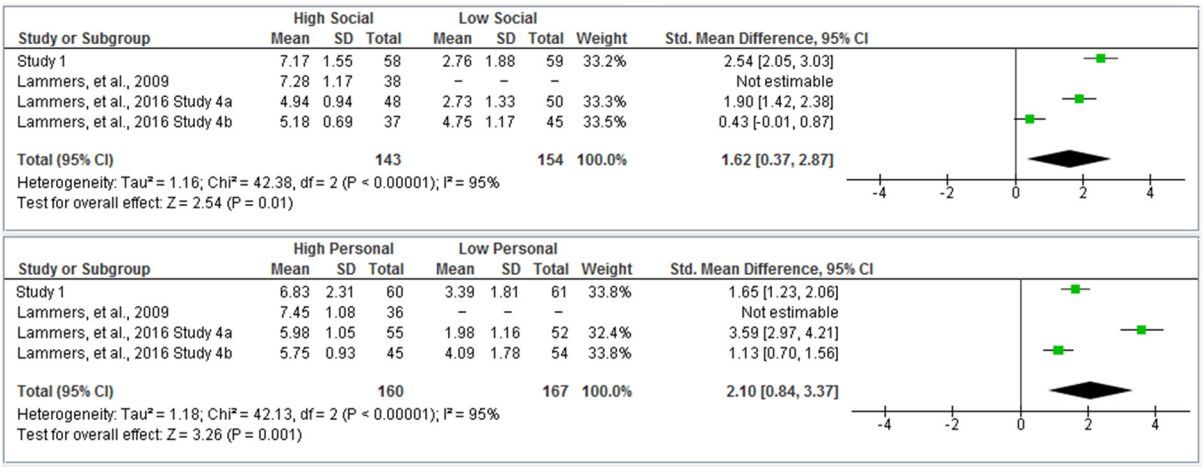


Figure 2. Forest plots for the comparison between feelings of influence in episodes of high and low social power (top), and feelings of autonomy in episodes of high and low personal power (bottom).

Main Analyses

Moving on to the main analyses, we address each horizontal pathway in Figure 1, first testing the relationship between elevated and then between impaired states of social and personal power.

High Social Power → High Personal Power. Episodes of high social power were experienced as less autonomous than episodes of high personal power, g = -0.70, 95% CI [-1.29, -0.11], $Z_{combined}$ = 2.33, n = 391, $p_{combined}$ = .020 (Figure 3, top), and no more autonomous than episodes of low social power, g = 0.15, 95% CI [-0.47, 0.77], $Z_{combined}$ = 0.46, n = 297, $p_{combined}$ = .640 (Figure 3, bottom). Thus, unexpectedly, this suggests that episodes of elevated social power were *not* associated with increased autonomy.

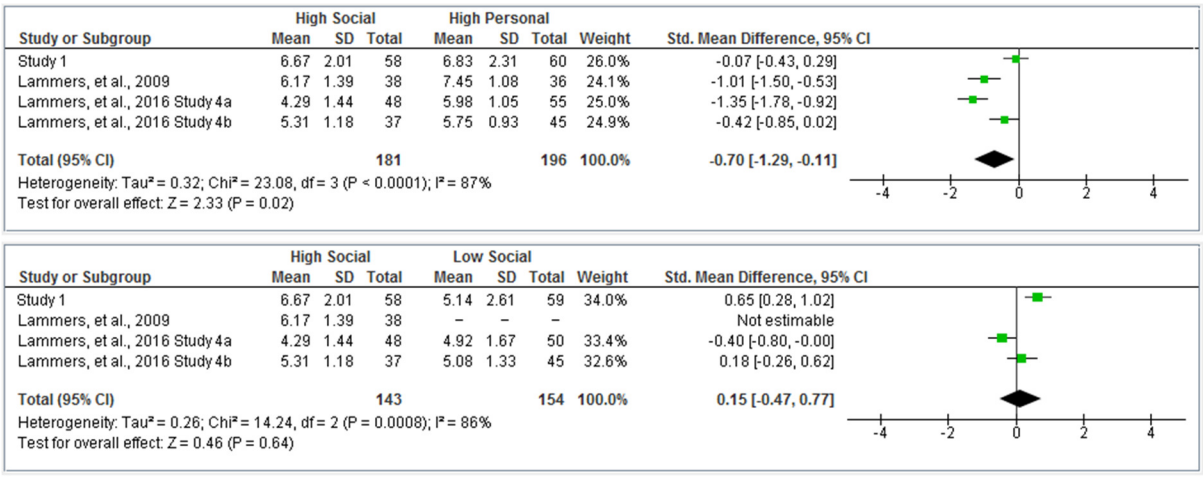


Figure 3. Forest plots for the comparison between feelings of autonomy in episodes of high social power and high personal power (top), and of high social and low social power (bottom).

High Personal Power → High Social Power. Moving on, we found that high personal power episodes afforded less influence than high social power episodes, g = -1.03, 95% CI [-1.76, -0.30], $Z_{combined}$ = 2.76, n = 377, $p_{combined}$ = .006 (Figure 4, top), but more influence than low personal power episodes, g = 0.44, 95% CI [0.44, 0.66], $Z_{combined}$ = 3.96, n = 327, $p_{combined}$ < .001 (Figure 4, middle). This latter result was unexpected, although the difference between high personal and low personal power episodes was relatively small and less than one scale point when examined as a non-standardised mean difference (M_{diff} = 0.70). Probing these results further, feelings of influence did not differ between high personal power and neutral episodes, g = 0.29, 95% CI [-0.72, 1.31], $Z_{combined}$ = 0.57, n = 208, $p_{combined}$ = .570 (Figure 4, bottom), but differed between low personal power and neutral episodes, g = -0.60, 95% CI [-0.97, -0.23], $t(119)$ = 3.33, p = .001. Together, these results suggest that impaired personal power may lower influence, but elevated personal power may not necessarily increase influence, consistent with our theoretical model.

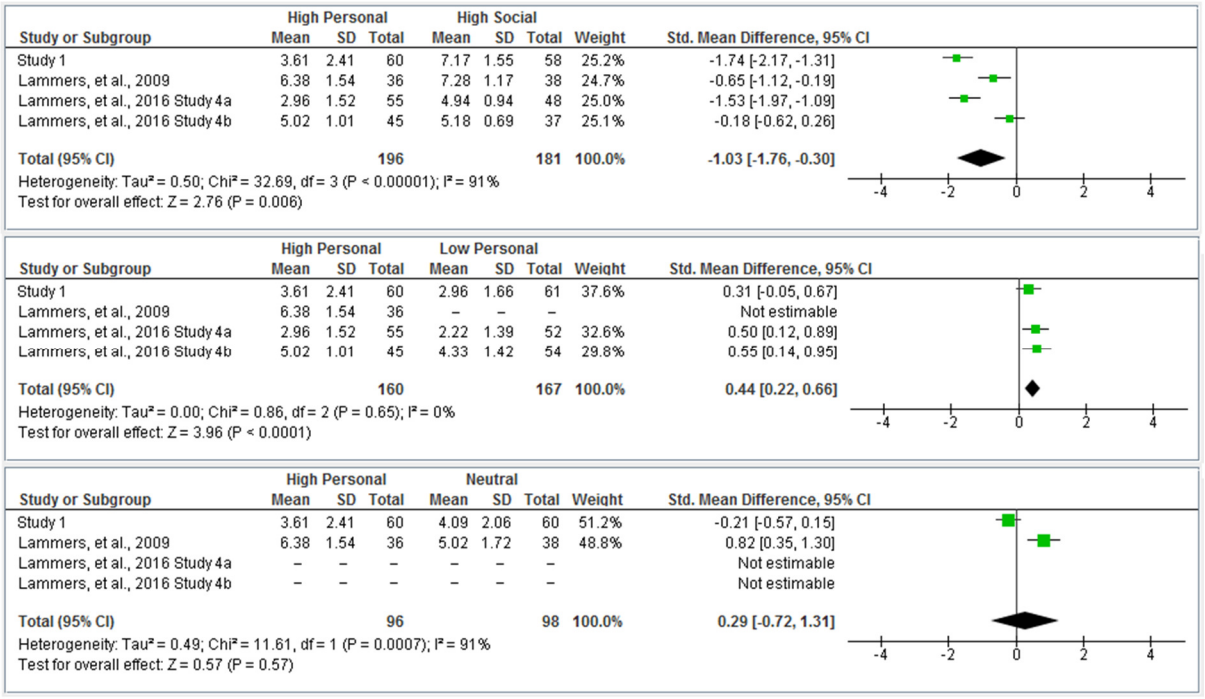


Figure 4. Forest plots for the comparison between feelings of influence in episodes of high personal power and high social power (top), of high personal power and low personal power (middle), and of high personal power and neutral episodes (bottom).

Low Personal Power → Low Social Power. Consistent with our theoretical model, influence was similarly impaired in low social power episodes and in low personal power episodes, $g = 0.18$, 95% CI [-0.13, 0.49], $Z_{combined} = 1.16$, $n = 311$, $p_{combined} = .250$ (Figure 5). Furthermore, as indicated above feelings of influence differed between low personal power and neutral episodes. In combination, these results corroborate the conclusion that impaired personal power coincides with low levels of influence.

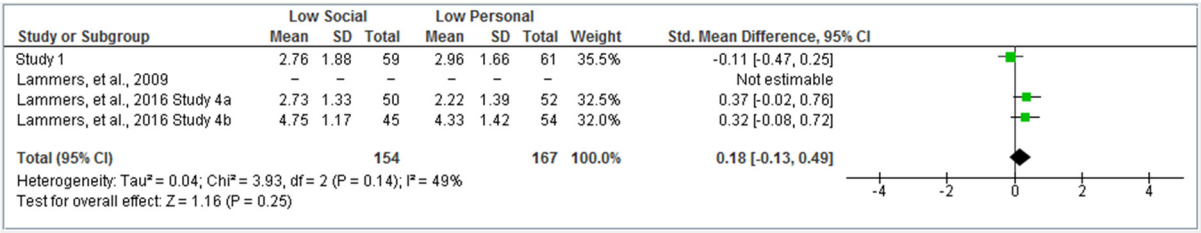


Figure 5. Forest plot for the comparison between feelings of influence in episodes of low social power and low personal power.

Low Social Power → Low Personal Power. Recall that episodes of low social power were associated with the same level of autonomy as episodes of high social power. At the same time, episodes of low social power conferred lower levels of autonomy than neutral episodes. This latter result was unexpected but derives from a single sample and is henceforth perhaps more tentative, g = -0.43, 95% CI [-0.79, -0.07], $t(117) = 2.40$, $p = .021$. Crucially, autonomy was markedly higher in episodes of low social power compared to episodes of low personal power, g = 1.13, 95% CI [0.32, 1.94], $Z_{combined} = 2.74$, $n = 311$, $p_{combined} = .006$ (Figure 6). On balance, these results are consistent with the notion that low social power does *not* imply low personal power.

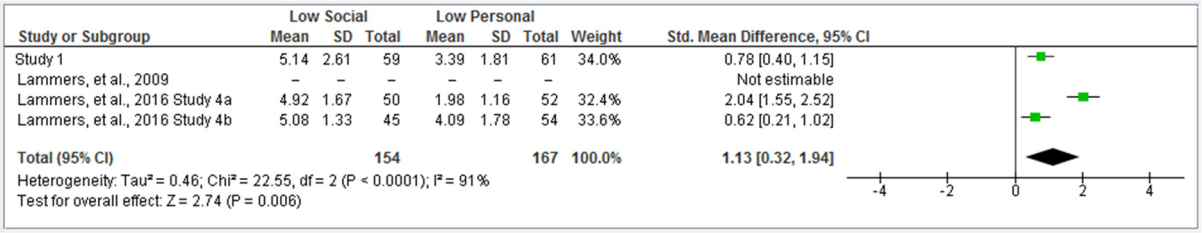


Figure 6. Forest plot for the comparison between feelings of autonomy in low social power and low personal power episodes.

Further Exploratory Analyses

Unexpectedly, we found that having high social power did *not* afford high personal power. To further explore this result, we performed additional exploratory analyses, which indicated that episodes of high social power were experienced as more autonomous than episodes of low personal power, g = 1.41, 95% CI [0.78, 2.04], $Z_{combined} = 4.38$, $n = 354$, $p_{combined} < .001$ (Figure 7, top). Furthermore, high social power episodes conferred a similar level of autonomy as neutral episodes, g = -0.09, 95% CI [-0.69, 0.51], $Z_{combined} = 0.29$, n = 194, $p_{combined} = .770$ (Figure 7, bottom). This suggests that gaining high social power may be a viable route via which individuals can *restore* impaired autonomy, albeit not attain the same

high levels of autonomy as might be afforded by episodes of high personal power (see analysis above).

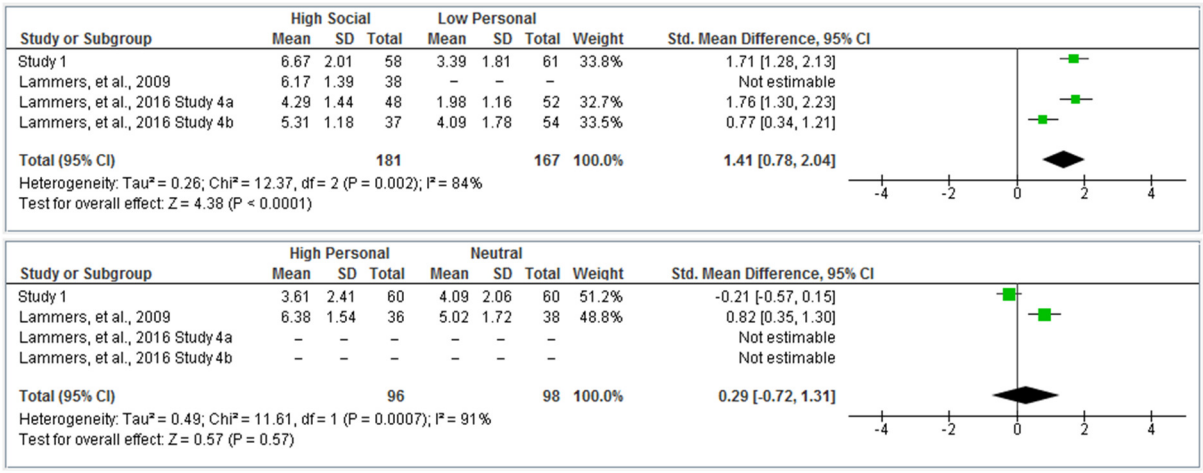


Figure 7. Forest plot for the comparison between feelings of autonomy in episodes of high social power and low personal power (top), and of high social power and neutral episodes (bottom).

All in all, Study 1 provided support for the notion that low personal power affords low social power but not vice versa. In contrast, the proposed link between high social and high personal power was not supported.

Study 2

The pattern of results obtained in Study 1 suggests that the association between social and personal power strengthens with diminishing levels of power, and weakens with increasing levels of power. In what follows, we report the results of a correlational study to test these predictions.

Method

Participants and Design

Two-hundred and eighty-seven participants took part in this correlational study. The study was conducted online and we only considered responses from participants who

completed all parts of the survey. Twenty-one participants failed pre-planned attention checks (e.g., "*If you are reading this please select 4*"), leaving a final sample of 266 participants (230 females, M_{age} = 19.89, SD_{age} = 4.21).

Procedure and Materials

Study materials were embedded in a mass-test conducted with first and second year undergraduate students, and appeared alongside a range of unrelated scales. Data were gathered in two waves in autumn 2016 and spring 2017. To measure social power, participants completed the Sense of Power scale (Anderson et al., 2012), an 8-item measure of individuals' enduring beliefs in how much influence and control they exert over others (e.g., "*I can get other to do what I want*"; "*My ideas and opinions are often ignored*" (R)). Participants responded on a 7-point scale ranging from 1 (*Completely False*) to 5 (*Completely True*). Personal power was assessed using a three-item scale developed by Cichocka et al. (2016), and participants indicated how much control they had over their own outcomes on a scale ranging from 1 (*I feel I have little control over my life*; *I have little influence on my fate*; *There are many things in my life I cannot influence*) to 7 (*I feel I have great control over my life*; *I have great influence on my fate*; *There are few things in my life I cannot influence*).

Results and Discussion

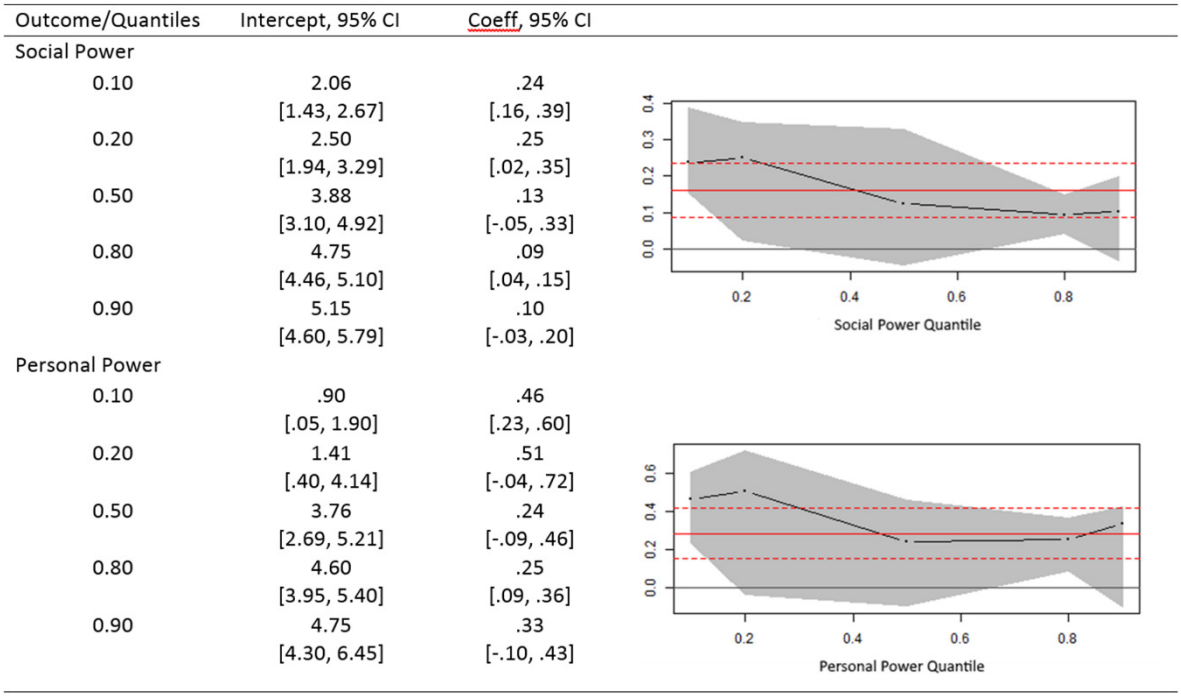
Data Preparation

We averaged the social power (α = .87, M = 4.43, SD = .96) and the personal power (α = .71, M = 4.69, SD = 1.28) items to form composites after recoding negatively worded items. As anticipated, the two composites were positively correlated, $r(264) = .21$, $p < .001$.

Main Analysis

To examine the association between social and personal power at different levels of power, we performed a quantile regression using a rank inversion method to derive confidence intervals (Koenker, 2005). In particular, we probed the association between

personal power and social power at different levels of social power (0.10, 0.20, 0.50, 0.80, and 0.90 quantiles) and, in a separate analysis, at different levels of personal power (0.10, 0.20, 0.50, 0.80, and 0.90 quantiles). As can be seen in Figure 8, the regression slopes were significant for lower quantiles (social power quantiles: 0.10, 0.20; personal power quantiles: 0.10), but levelling off and not significant for higher quantiles (with the exception of the 0.80 quantile for which the slopes were shallower but significant due to a smaller standard error). As anticipated, this suggests that the association between social and personal power grew stronger for lower levels of power and became weaker for higher levels of power. A similar pattern of results was obtained for the intercept (not depicted graphically), which appeared to level off with increasing levels of power, although this was only the case in the quantile regression with personal power as outcome variable.



Outcome/Quantiles	Intercept, 95% CI	Coeff, 95% CI
Social Power		
0.10	2.06	.24
	[1.43, 2.67]	[.16, .39]
0.20	2.50	.25
	[1.94, 3.29]	[.02, .35]
0.50	3.88	.13
	[3.10, 4.92]	[-.05, .33]
0.80	4.75	.09
	[4.46, 5.10]	[.04, .15]
0.90	5.15	.10
	[4.60, 5.79]	[-.03, .20]
Personal Power		
0.10	.90	.46
	[.05, 1.90]	[.23, .60]
0.20	1.41	.51
	[.40, 4.14]	[-.04, .72]
0.50	3.76	.24
	[2.69, 5.21]	[-.09, .46]
0.80	4.60	.25
	[3.95, 5.40]	[.09, .36]
0.90	4.75	.33
	[4.30, 6.45]	[-.10, .43]

Figure 8. Intercepts (2nd column) and slopes (3rd column) of estimated linear quantile regressions, with slopes plotted for different quantiles (τ) (outer right); OLS estimates are shown as a red line and associated confidence intervals as red dotted line in electronic materials provided online.

General Discussion

The aim of the present research was to develop a model that spells out the relationship between social and personal power. Synthesising primary and secondary data derived from different samples, Study 1 provided support for the assumption that everyday manifestations of low personal power coincide with low levels of influence and hence a lack of social power. In contrast, and as predicted, lacking social power does not necessarily imply a lack of autonomy and hence does not always coincide with low personal power. However, contrary to our model and popular belief (e.g., Lammers et al., 2016; Van Dijke & Poppe, 2006), we found no evidence that having high social power afforded high personal power, or vice versa. This latter result was unexpected and surprising; the notion that high social power affords freedom and autonomy is strongly ingrained in theoretical thinking (e.g., Keltner, Gruenfeld, & Anderson, 2003).

One implication of the pattern of results obtained in Study 1 is that social and personal power should co-vary at low levels of power, but not at high levels of power. To test this novel prediction and to ensure that the findings obtained in Study 1 were not solely an artefact of the particular method used, in Study 2 we examined associations between social and personal power that emerged from self-report measures. The results indicated that variations in social power were associated with changes in personal power when personal power was low, but not when personal power was high. Conversely, variations in personal power were associated with changes in social power when social power was low, but not when social power was high. This pattern of results suggests that the association between social and personal power varies across the power spectrum, and weakens with increasing levels of power. All in all, the present findings point to a need to revise our model, removing the link between high social and high personal power. Figure 9 depicts our revised model and summarises the relationship between social and personal power.

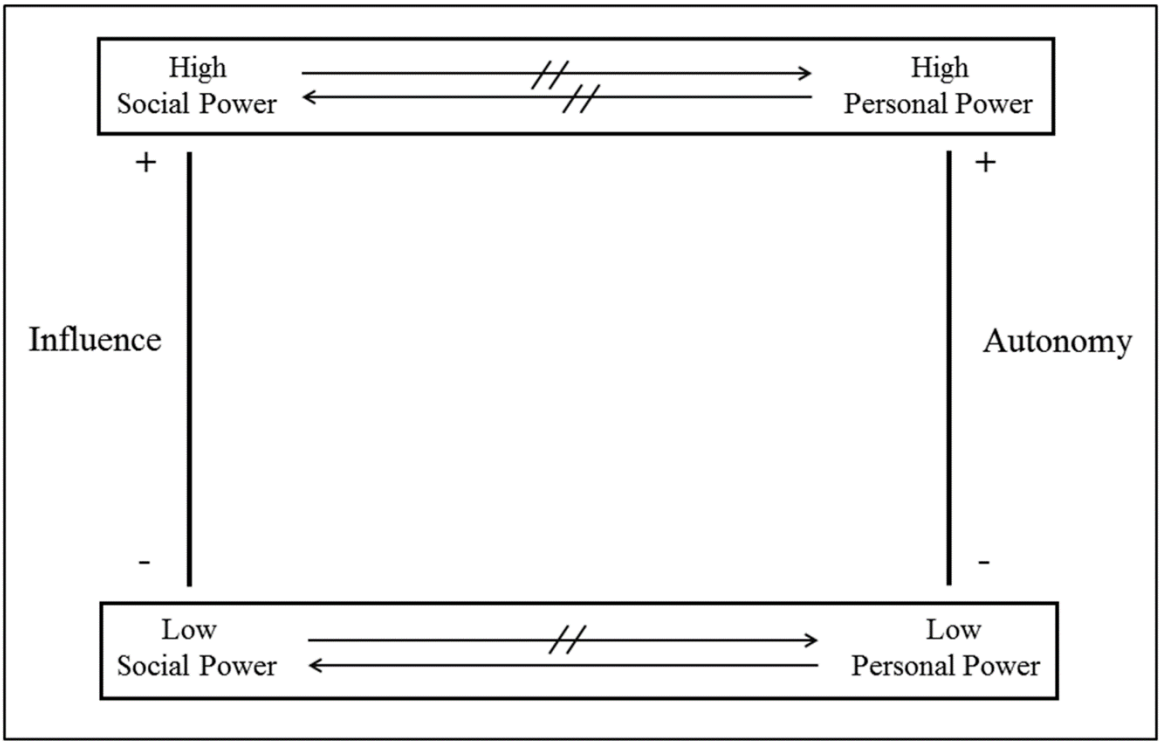


Figure 9. Revised theoretical model depicting the relationship between social and personal power.

In what follows, we discuss potential reasons for the unexpected dissociation between high social and high personal power. We then turn our attention to our revised model as a whole and discuss implication for current theorising and empirical work. We conclude with an outline of potential avenues for future research.

Why Does Elevated Influence Not Beget Elevated Autonomy?

Modern leaders are expected to take the interests of their subordinates into account and work hard to advance them—in particular in the modern, Western workplace with its strong focus on a democratic exercise of positions of power. Indeed, almost all modern theories of leadership such as Transformational Leadership (Bass, 1997; Bass & Avolio, 1994; Bass & Riggio, 2006) or Leader-Member Exchange Theory (Dansereau, Graen, & Haga, 1975; Graen & Uhl-Bien, 1995) stress the need for leaders to be attentive to the ideas and priorities of their followers, in order to be personally successful in their exercise of

power. Although these approaches are certainly beneficial to organizations, they undoubtedly restrain leaders in their experience of autonomy. Furthermore, modern evaluation procedures have strongly reduced the degree of autonomy exercised by modern managers in middle and even top-management and have opened them up to increased scrutiny by others in the organization (Ikramullah, Van Prooijen, Iqbal, & Ul-Hassan, 2016; Jenks, 1991). Such developments may explain why having greater social power and in general being higher in the hierarchy does not increase feelings of personal power.

This may be further bolstered by the fact that many people disapprove of 'hard' uses of power (Ng & Tajfel, 1982), and such dispositions are likely to predict how power is wielded (e.g., Chen, Lee-Chai, & Bargh, 2001). Furthering this point, it has been argued that power often serves an evolutionary function by imposing differential roles on the members of groups, with low power parties motivated to offset the costs of high power parties, by providing prestige and status offerings. In this view, the high power party has a duty to provide for the low power party, ultimately benefiting the group as a whole. However, when this duty is neglected, and a dominance relationship is enforced, high power positions may provide more unequivocal opportunity to the powerful (Price & Van Vugt, 2014). This would suggest that, although feelings of personal power and opportunity may sometimes arise from social power, responsibility might often be a salient and typifying feature of social power (see Fuligni, 1998; Tost, Wade-Benzoni, & Johnson, 2015; Van Dijk & Vermunt, 2000).

Implications

As people are generally motivated to increase their autonomy (Lefcourt & Telegdi, 1971), it is often assumed that influence is likely to be construed, and wielded, in service of autonomy (Inesi et al., 2011; Lammers et al., 2016; Van Dijke & Poppe, 2006). The present findings highlight intriguing disparities in the way social power is experienced by those who have and those who lack it. When reporting their general beliefs, people often view social

power in a favourable light as a means to obtain opportunities (Zhong, Magee, Maddux, & Galinsky, 2006) and to achieve happiness (Mondillon et al., 2005). Thus people's anticipation of what it is like to wield power may be overly optimistic, and this might spur a desire for social power as observed by Lammers et al. (2016). One potential explanation for these biased perceptions may be that it is easier to bring to mind exemplars of power-holders who lack responsibility (e.g., tyrannical leaders, fat cat bankers), than those who do not. Interestingly, when the potential baggage of responsibility is made salient people seem to appreciate the drawback of social power (Lammers et al., 2006).

Turning to impaired states, the present findings suggest that personal power implies social power but not vice versa, suggesting that one must be sufficiently able to control one's own outcomes (i.e., personal power) before one is able to control other's outcomes (i.e., social power). In this sense, personal power may be more fundamental than social power (for further discussion see Inesi et al., 2011). In particular, a lack of personal power leaves one powerless in the most basic sense—dependent on external influences and subject to potential threats. In contrast, a lack of social power does not need to be threatening and merely means the absence of the exercise of social control. However, after a sufficient level of personal power has been obtained (perhaps reaching baseline levels) different forms of power may manifest independently of one another. This view aligns with the wider literature on self-determination (e.g., Lefcourt & Telegdi, 1971), and with the fact that the consequences of impaired personal power appear to be far more severe than those of impaired social power (e.g., Maier & Seligman, 1976).

Pratto (2016) recently highlighted a number of shortcomings and inconsistencies that arise from traditional perspectives that define social power as a relational construct (e.g., Thibaut & Kelley, 1959). To overcome these limitations, Pratto proposed a conceptual re-focus on power as a state of being able to achieve one's goals. Our theoretical model concurs

with Pratto's emphasis on low autonomy as a key defining feature of powerlessness. However, whilst, as we have seen, power may provide a route to *restore* impaired autonomy, the present work also suggests that high social power cannot be equated with a state of high autonomy. Instead, high levels of influence appear to be a critical feature to distinguish high social power from neutral or baselines states.

Related to the previous point, the present work highlights once again the importance of including neutral or baseline conditions in empirical research on power (cf., Moskowitz, 2004). Personal power fosters greater decisiveness and confidence (Johnson & Kilmann, 1975; McKinney, 1975), goal-directness (Seeman, 1963), and superior performance in cognitive tasks (e.g., Plares, 1968) as well as tasks requiring intuition (e.g., Lefcourt & Telegdi, 1971). The same behavioural and cognitive signatures have also been attributed to high social power, typically based on studies that compare the performance of low and high power individuals. Evidently, such an approach is inadequate to discern any effects of high social power above and beyond the high levels of autonomy that one would expect to observe in baseline participants.

Future Research

We have argued that an increase in social power may not necessarily increase personal power because with every increase in discretionary abilities and control, individuals also gain additional responsibilities and are faced with an additional increase in scrutiny—in a linear fashion. That said, Lammers and colleagues' (2016) last study provides some indication that social power (hierarchy) may confer personal power (autonomy) at the very top levels of organizations. Here, members of the organization reach the unique position that they no longer have anyone above them in the hierarchy, to evaluate or control them—at least not in the same organization. Current empirical research is often not geared towards capturing phenomena that operate at the top end of the power spectrum, and this is an important avenue

for future research. In a related vein, future research should examine how the impact of high social power is moderated by factors that impact powerholders' autonomy, such as, for example, critical stakeholders or a democratic, 360-degree evaluation system (Atkins & Wood, 2002; Dansereau et al., 1975).

The present work suggests that a critical ingredient to empowering individuals is not their own social power, but the absence of others' control. This may have ramifications for policies aimed at alleviating health and other inequalities. Future research should explore in more depth factors that shape individuals' experiences of low personal power, and how those experiences may be altered.

Strengths and Weaknesses

We believe the episodic priming task used in Study 1 is a strength of the current research because it provides a means of sampling people's *actual* experiences, thereby addressing concerns as to the validity of artificially construed power-situations (e.g., role assignment; Swanner & Beike, 2015). Moreover, it is generally accepted that the details of recalled experiences, although susceptible to bias (e.g., Tafarodi, Marshall, & Milne, 2003), are epistemically robust (e.g., Christianson, 2014), and when focused around specific events, represent a valid source of information as to the general and salient features of said events (e.g., Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004).

A limitation of our work is that our meta-analytic approach focused on central tendencies which may obscure important differences *between* samples. Indeed, variations between studies were often significant (as evidenced by the I^2 statistics that accompanied the forest plots; see Higgins, Thompson, Deeks, & Altman, 2003). This may be due to a variety of factors such as age, occupation, or, most importantly, geographical location as participants were sampled from the US, UK, Germany, and India. We know power is construed differently in different countries, and it may well be the case that the association between

influence and autonomy depends on the cultural context. For example, high social power may be associated with a greater sense of responsibility and lower autonomy in Eastern cultural settings (e.g., Zhong et al., 2006). There is a need for further comparative research on hierarchical relations across cultures.

Conclusions

The aim of the present research was to clarify the relationship between high and low levels of social and personal power. We found that, contrary to popular belief, everyday episodes of high social power did *not* imply high personal power (nor vice versa). However, episodes of low personal power coincided with low social power (but not vice versa). This suggests that the association between influence (personal power) and autonomy (social power) grows weaker with increasing levels of power. These findings hold relevance for our understanding of low and high power as an overarching construct.

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Supplementary Materials

Table S1. *Summary of conditions, and corresponding power manipulations, employed in the current and previous studies.*

	Condition	N	Manipulation (Recall a time/experience in which…)
Lammers et al., 2009	High Personal	36	...you personally had power, where you were independent from the influence of others. This means that you could fully determine what you yourself would do or get.
	High Social	38	...you had power over others, where you controlled and directed other people. This means that you could determine what these others should do or what they would get.
	Neutral	38	...you went to the shops.
Lammers et al., 2016, Study 4a	High Personal	55	...you were free and independent to control your own fate.
	High Social	48	…you were trying to influence or control other people.
	Low Personal	52	...you were not free and independent to control your own fate.
	Low Social	50	...you were not trying to influence or control other people.
Lammers et al., 2016, Study 4b	High Personal	45	...you were free and independent to control your own fate.
	High Social	37	...you were trying to influence or control other people.
	Low Personal	54	...you were not free and independent to control your own fate.
	Low Social	45	...you were not trying to influence or control other people.
Study 1	High Personal	60	...you were not dependent on the actions of another individual or individuals, and you felt that you had complete control over what would, or did, happen to you.
	High Social	58	...someone else was dependent on your actions, and you felt that you had complete control over what would, or did, happen to another individual or individuals.
	Low Personal	60	...you were dependent on the actions of another individual or individuals, and you felt that you had no control over what would, or did, happen to you.
	Low Social	61	...no one else was dependent on your actions, and you felt that you had no control over what would, or did, happen to another individual or individuals.
	Neutral	59	...you went to the supermarket.

Table S2. *Influence and autonomy as a function of social and personal power, in all samples.*

	Lammers et al., 2009				**Lammers et al., 2016, Study 4a**				**Lammers et al., 2016, Study 4b**				**Study 1**			
	Influence		Autonomy		Influence		Autonomy		Influence		Autonomy		Influence		Autonomy	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
High Social	7.28	1.17	6.17	1.39	4.94	0.94	4.29	1.44	5.18	0.69	5.31	1.18	7.17	1.55	6.67	2.01
High Personal	6.38	1.54	7.45	1.08	2.96	1.52	5.98	1.05	5.02	1.01	5.75	0.93	3.61	2.41	6.83	2.31
Neutral	5.02	1.72	6.79	1.58	-	-	-	-	-	-	-	-	4.09	2.06	6.22	2.39
Low Social	-	-	-	-	2.73	1.33	4.92	1.67	4.75	1.17	5.08	1.33	2.76	1.88	5.14	2.61
Low Personal	-	-	-	-	2.22	1.39	1.98	1.16	4.33	1.42	4.09	1.78	2.96	1.66	3.39	1.81

NB. Study 1 and Lammers et al. (2009) employed 9-point scales, whereas Lammers et al. (2016) employed 7-point scales.